

Representative Val L. Peterson proposes the following substitute bill:

**SCIENCE, TECHNOLOGY, ENGINEERING, AND
MATHEMATICS ACTION CENTER**

2013 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: Val L. Peterson

Senate Sponsor: Stephen H. Urquhart

LONG TITLE

General Description:

This bill creates educational programs for science, technology, engineering, and mathematics (STEM).

Highlighted Provisions:

This bill:

- ▶ creates a Science, Technology, Engineering, and Mathematics (STEM) Action Center Board;
- ▶ requires the STEM Action Center Board to:
 - establish a STEM Action Center; and
 - appoint an executive director to oversee administration of the STEM Action Center;
- ▶ requires the Governor's Office of Economic Development to staff the STEM Action Center Board and the STEM Action Center;
- ▶ requires the STEM Action Center Board to select providers, through a request for proposals process, to provide education related instructional technology;
- ▶ requires the STEM Action Center Board to work with private industry to obtain private funding and support for the STEM Action Center;



- 26 ▶ requires the STEM Action Center Board to perform certain duties related to the
- 27 STEM Action Center;
- 28 ▶ requires the executive director to track student achievement and progress in STEM
- 29 areas;
- 30 ▶ requires the STEM Action Center Board, and all providers selected through a
- 31 request for proposals process, to report to the Education Interim Committee, the
- 32 Public Education Appropriations Subcommittee, and the State Board of Education
- 33 once each year; and
- 34 ▶ requires the State Board of Education to award grants to school districts and charter
- 35 schools for STEM related education courses if certain conditions are met.

36 **Money Appropriated in this Bill:**

37 This bill appropriates in fiscal year 2014:

- 38 ▶ to Governor's Office of Economic Development - Administration, as an ongoing
- 39 appropriation:
 - 40 • from the General Fund, \$15,000,000;
- 41 ▶ to Governor's Office of Economic Development - Administration, as a one-time
- 42 appropriation:
 - 43 • from the General Fund, (\$5,000,000); and
- 44 ▶ to State Board of Education - State Office of Education, as a one-time
- 45 appropriation:
 - 46 • from the General Fund, \$5,000,000.

47 **Other Special Clauses:**

48 This bill provides an effective date.

49 **Utah Code Sections Affected:**

50 ENACTS:

- 51 **53A-17a-169**, Utah Code Annotated 1953
- 52 **63M-1-3201**, Utah Code Annotated 1953
- 53 **63M-1-3202**, Utah Code Annotated 1953
- 54 **63M-1-3203**, Utah Code Annotated 1953
- 55 **63M-1-3204**, Utah Code Annotated 1953
- 56 **63M-1-3205**, Utah Code Annotated 1953

57 **63M-1-3206**, Utah Code Annotated 1953

58 REPEALS:

59 **63M-1-608**, as renumbered and amended by Laws of Utah 2008, Chapter 382



61 *Be it enacted by the Legislature of the state of Utah:*

62 Section 1. Section **53A-17a-169** is enacted to read:

63 **53A-17a-169. Grants to schools for STEM education grant program.**

64 (1) For purposes of this section, "SEOP" has the same meaning as defined in Section
65 53A-1a-106.

66 (2) Subject to legislative appropriations, the State Board of Education shall award
67 grants to school districts and charter schools to fund:

68 (a) a school district's or charter school's STEM career and technical education courses
69 if the school district or charter school provides matching funds for at least 100% of the grant
70 amount; or

71 (b) a school district's or charter school's STEM education plan described in Subsection
72 (3).

73 (3) (a) A school district or charter school may apply for a grant from the State Board of
74 Education, through a competitive process, to fund the school district's or charter school's
75 STEM education plan.

76 (b) A school district's or charter school's STEM education plan shall:

77 (i) focus on STEM education in grades 6, 7, and 8; and

78 (ii) include a plan to increase the number of students in grade 8 who, through an SEOP
79 process, plan to enroll in STEM courses as part of the students' high school course selection.

80 (4) The money awarded to a school district or charter school described in this section
81 may not be used to supplant funds for existing STEM education courses, but shall be used to
82 augment STEM education courses.

83 Section 2. Section **63M-1-3201** is enacted to read:

84 **Part 32. Science, Technology, Engineering, and Mathematics Action Center**

85 **63M-1-3201. Definitions.**

86 As used in this part:

87 (1) "Board" means the STEM Action Center Board created in Section 63M-1-3202.

88 (2) "Educator" has the meaning defined in Section 53A-6-103.

89 (3) "Office" means the Governor's Office of Economic Development.

90 (4) "Provider" means a provider, selected by the board through a request for proposals
91 process, to provide services as part of the STEM Action Center pursuant to this part.

92 (5) "STEM" means science, technology, engineering, and mathematics.

93 (6) "STEM Action Center" means the center described in Section 63M-1-3204.

94 Section 3. Section **63M-1-3202** is enacted to read:

95 **63M-1-3202. STEM Action Center Board creation -- Membership.**

96 (1) There is created the STEM Action Center Board within the office, composed of the
97 following members:

98 (a) the governor or the governor's designee;

99 (b) ~~H~~→ [at least] ←~~H~~ four private sector members who represent business, appointed by the
100 governor;

101 (c) the State Superintendent of Public Instruction or the State Superintendent of Public
102 Instruction's designee;

103 (d) the Commissioner of Higher Education or the Commissioner of Higher Education's
104 designee;

105 (e) a representative of the Department of Workforce Services, appointed by the director
106 of the Department of Workforce Services; and

107 (f) the State Science Advisor described in Section 63M-1-606.

108 (2) Except as required by Subsection (3), members appointed by the governor shall be
109 appointed to four-year terms.

110 (3) The length of terms of the members shall be staggered so that approximately half of
111 the committee is appointed every two years.

112 (4) When a vacancy occurs in the membership for any reason, the replacement shall be
113 appointed for the unexpired term.

114 (5) Attendance of a simple majority of the members constitutes a quorum for the
115 transaction of official committee business.

116 (6) Formal action by the committee requires a majority vote of a quorum.

117 (7) A member may not receive compensation or benefits for the member's service, but
118 may receive per diem and travel expenses in accordance with:

- 119 (a) Section 63A-3-106;
- 120 (b) Section 63A-3-107; and
- 121 (c) rules made by the Division of Finance pursuant to Sections 63A-3-106 and
- 122 63A-3-107.
- 123 (8) The office shall provide staff support to the board.
- 124 Section 4. Section **63M-1-3203** is enacted to read:
- 125 **63M-1-3203. STEM Action Center Board -- Duties.**
- 126 (1) The board shall:
- 127 (a) establish a STEM Action Center Program to:
- 128 (i) coordinate STEM activities in the state among the following stakeholders:
- 129 (A) the State Board of Education;
- 130 (B) school districts and charter schools;
- 131 (C) the State Board of Regents;
- 132 (D) institutions of higher education;
- 133 (E) parents of home-schooled students; and
- 134 (F) other state agencies;
- 135 (ii) align public education STEM activities with higher education STEM activities; and
- 136 (iii) create and coordinate best practices among public education and higher education;
- 137 (b) select a physical location for the STEM Action Center described in Section
- 138 63M-1-3204;
- 139 (c) strategically engage industry and business entities to cooperate with the board:
- 140 (i) to support professional development and provide other assistance for educators and
- 141 students; and
- 142 (ii) to provide private funding and support for the STEM Action Center;
- 143 (d) give direction to the office, the STEM Action Center, and the providers selected
- 144 through a request for proposals process pursuant to this part; and
- 145 (e) work to meet the following expectations:
- 146 (i) that at least 50 educators are implementing best practice learning tools in
- 147 classrooms per each product specialist or manager working with the STEM Action Center;
- 148 (ii) performance change in student achievement in each classroom working with a
- 149 STEM Action Center product specialist or manager; and

150 (iii) that students from at least 50 high schools participate in the STEM competitions,
151 fairs, and camps described in Subsection 63M-1-3204(2)(d).

152 (2) The board may:

153 (a) enter into contracts for the purposes of this part;

154 (b) apply for, receive, and disburse funds, contributions, or grants from any source for
155 the purposes set forth in this part;

156 (c) employ, compensate, and prescribe the duties and powers of individuals necessary
157 to execute the duties and powers of the board; and

158 (d) prescribe the duties and powers of the STEM Action Center providers.

159 Section 5. Section **63M-1-3204** is enacted to read:

160 **63M-1-3204. STEM Action Center Program.**

161 (1) The board shall:

162 (a) establish a STEM Action Center;

163 (b) appoint an executive director to oversee the administration of the STEM Action
164 Center;

165 (c) ensure that the STEM Action Center:

166 (i) is accessible by the public; and

167 (ii) includes the components described in Subsection (2);

168 (d) work cooperatively with the State Board of Education to implement the State Board
169 of Education's STEM education grant program described in Section 53A-17a-169; and

170 (e) engage at least 25 private entities to provide financial support or employee time for
171 STEM activities in schools in addition to what is currently provided by private entities.

172 (2) The executive director of the STEM Action Center shall:

173 (a) support professional development for educators regarding education related
174 instructional technology that supports STEM education;

175 (b) ensure that the STEM Action Center acts as a research and development center for
176 education related instructional technology acquired through a request for proposals process
177 described in Section 63M-1-3205;

178 (c) review and acquire education related technology for:

179 (i) educator professional development; and

180 (ii) public school instruction;

- 181 (d) facilitate participation in interscholastic STEM related competitions, fairs, and
 182 camps;
- 183 (e) engage private industry in the development and maintenance of the STEM Action
 184 Center;
- 185 (f) use resources to bring the latest STEM education learning tools into public
 186 education classrooms;
- 187 (g) identify at least 10 best practice innovations used in Utah schools that have resulted
 188 in at least 80% of students performing at grade level in STEM areas;
- 189 (h) identify at least 25 best practices being used outside the state and implement at least
 190 10 of the best practices through a pilot program;
- 191 (i) identify:
- 192 (i) three learning tools per grade in each of grades kindergarten through grade 6
 193 identified as best practices; and
- 194 (ii) three learning tools per STEM subject in each of grades 7 through grade 12
 195 identified as best practices;
- 196 (j) provide a Utah best practices database ~~H→~~, ~~←H~~ including best practices from public
 197 education, higher education, the Utah Education Network, and other STEM related entities;
- 198 (k) keep track of the following items related to the best practices database described in
 199 Subsection (2)(j):
- 200 (i) how the best practices database is being used; and
- 201 (ii) how many individuals are using the database, including the demographics of the
 202 users, if available;
- 203 (l) join and participate in a national STEM network;
- 204 (m) identify performance changes linked to use of the best practices database described
 205 in Subsection (2)(j);
- 206 (n) implement at least five applied learning curriculum pilots in classrooms;
- 207 (o) support best methods of professional development, including methods of
 208 professional development that reduce cost and increase effectiveness, to help educators learn
 209 how to most effectively implement best practice learning tools in classrooms;
- 210 (p) recognize a high school's achievement in the STEM competitions, fairs, and camps
 211 described in Subsection (2)(d);

- 212 (q) send student results from STEM competitions, fairs, and camps described in
 213 Subsection (2)(d) to media and ask that the media report on them in a similar manner;
 214 (r) develop and distribute STEM toolkits to parents of students being tracked by
 214a the STEM
 215 Action Center;
 216 (s) produce a newsletter at least once a week to be made available to interested
 217 individuals, including legislators;
 218 (t) support STEM professionals working to obtain a competency-based license in
 219 accordance with Section 53A-6-104.5 and as granted by the State Board of Education;
 220 (u) support targeted professional development for improved instruction in STEM in
 221 grades 6, 7, and 8, including:
 222 (i) improved instructional materials that are more dynamic and stimulating for
 223 students;
 224 (ii) targeted instruction for students who traditionally avoid enrolling in STEM
 225 courses;
 226 (iii) introduction of stimulating engineering courses; and
 227 (iv) introduction of other research based methods that support student achievement in
 228 STEM areas;
 229 (v) ensure that an online college readiness assessment tool developed by the State
 230 Board of Regents be accessible by:
 231 (i) public education students; and
 232 (ii) higher education students; and
 233 (w) develop and produce low cost, highly interactive, print and
 233a online mathematics
 234 instructional support materials for students in grades 7 and 8 that will
 234a meet the State Board of
 235 Education's core curriculum standards for mathematics.
 236 (3) The board may prescribe other STEM education related duties for the STEM
 236a Action Center in addition to
 237 the responsibilities described in this section.
 238 (4) (a) The executive director shall track and compare the student performance of
 239 students participating in a STEM Action Center program to all other similarly situated students
 240 in the state, in the following STEM related activities, at the beginning and end of each year:
 241 (i) public education high school graduation rates;
 242 (ii) the number of students taking a remedial mathematics course at an institution of

243 higher education described in Section 53B-1-102;

244 (iii) the number of students who graduate from a Utah public school and begin a
245 postsecondary education program; and

246 (iv) the number of students, as compared to all similarly situated students, who are
247 performing at grade level in STEM classes.

248 (b) The State Board of Education shall provide information to the board to assist the
249 board in complying with the requirements of Subsection (4)(a) ~~H→~~ :

249a (i) ~~H~~ if allowed under federal law ~~H→~~ [:] ; and

249b (ii) in accordance with the requirements of the Federal Family Educational Rights and
249c Privacy Act in 20 U.S.C. 1232 (g) and (h) and related federal regulations. ~~H~~

250 Section 6. Section **63M-1-3205** is enacted to read:

251 **63M-1-3205. Acquisition of education related instructional technology -- Research**
252 **and development of education related instructional technology.**

253 (1) The board shall select one or more providers, through a request for proposals
254 process, to provide education related instructional technology for educators and students.

255 (2) Before issuing a request for proposals described in Subsection (1), the board shall
256 find the best known methods of purchasing learning tools, including education related
257 instructional technology, in accordance with Title 63G, Chapter 6, Utah Procurement Code.

258 Section 7. Section **63M-1-3206** is enacted to read:

259 **63M-1-3206. Report to Legislature and the State Board of Education.**

260 (1) The board and all providers shall report the progress of the STEM Action Center,
261 including the information described in Subsection (2), to the following groups once each year:

262 (a) the Education Interim Committee;

263 (b) the Public Education Appropriations Subcommittee; and

264 (c) the State Board of Education.

265 (2) The report described in Subsection (1) shall include information that demonstrates
266 the effectiveness of the program, including:

267 (a) the number of educators receiving professional development;

268 (b) the number of students receiving services from the STEM Action Center;

269 (c) a list of the providers selected pursuant to this part;

270 (d) a report on the STEM Action Center's fulfilment of its duties described in
271 Subsection 63M-1-3204; and

272 (e) student performance of students participating in a STEM Action Center program as
273 collected in Subsection 63M-1-3204 ~~H→~~ [(5)] (4) ~~H~~ .

274 Section 8. **Repealer.**

275 This bill repeals:

276 Section **63M-1-608, Science education program.**

277 Section 9. **Appropriation.**

278 Under the terms and conditions of Title 63J, Chapter 1, Budgetary Procedures Act, for
 279 the fiscal year beginning July 1, 2013, and ending June 30, 2014, the following sums of money
 280 are appropriated from resources not otherwise appropriated, or reduced from amounts
 281 previously appropriated, out of the funds or accounts indicated. These sums of money are in
 282 addition to any amounts previously appropriated for fiscal year 2014.

283 To Governor's Office of Economic Development - Administration

284 From General Fund \$15,000,000

285 From General Fund, one-time (\$5,000,000)

286 Schedule of Programs:

287 Administration \$10,000,000

288 To State Board of Education - Related to Basic School Programs

289 From General Fund, one-time \$5,000,000

290 Schedule of Programs:

291 STEM Education Grant Program \$5,000,000

292 The Legislature intends that:

293 (1) the appropriation for Administration be used ~~H~~→ [to] ←~~H~~ :

294 (a) ~~H~~→ to ←~~H~~ establish a STEM Action Center as described in Section 63M-1-3204;

295 (b) ~~H~~→ to ←~~H~~ establish a physical location for the STEM Action Center; and

296 (c) for education related instructional technology as described in Section 63M-1-3205;

297 (2) the appropriation for ~~H~~→ the ←~~H~~ STEM Education Grant Program be used by

297a the State Board

298 of Education to award grants to school districts and charter schools for STEM related education

299 courses as described in Section 53A-17a-169;

300 (3) the appropriation described in Subsection (1):

301 (a) be ongoing; and

302 (b) not lapse at the close of fiscal year 2014; and

303 (4) the appropriation described in Subsection (2):

304 (a) be one-time; and

305 (b) not lapse at the close of fiscal year 2014.

306 Section 10. **Effective date.**

307 (1) Except as provided in Subsection (2), this bill takes effect on May 14, 2013.

308 (2) Uncodified Section 9, Appropriation, takes effect on July 1, 2013.